

Field Verification of Ecological Hazard Quotients: A Streamlined Decision Approach

Elizabeth A. Ferguson, David J. Brancato, John. P. Jent, and Walter Perro, U.S. Army Corps of Engineers, Louisville District

Often, predictions of conservative screening level ecological risk assessments indicate a moderate to very high probability of risk (HQs) to receptors. In many cases, these high HQ values do not agree with the visual or recorded ecological conditions at the site. This dichotomy often leads toward refinement of risk equations that lower the HQ value but may not reach regulatory requirements. Usually the HQ value can be lowered by only one order of magnitude with such refinements. Considering the cost of the desktop HQ refinement exercises, an improved approach might be to avoid further desktop work and to gather field-based information that will lead to informed and responsible decisions. This field-verification or field-truthing can be performed using several techniques and receptors. Rational for use and techniques for field verification studies and outcome scenarios will be discussed.